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| **D65 Neural correlates of emotional episodic memory encoding and retrieval: Neuroimaging meta-analyses using seed-based d mapping**Kristina Dahlgren1, Charles Ferris1, Stephan Hamann1Emory UniversityTable 1 |
| *Studies included in the encoding meta-analysis* |
| 1st Author | Year | N(f) | Stimuli | Retrieval Task | Threshold/Extent | Contrast |
| Barnacle  | 2016 | 22(22) | scenes (-/n) | free recall | p<.005/k =20 | Negative DM > Neutral DM (in mixed emotional and neutral encoding lists)\* |
| Bisby | 2016 | 17(?)  | scenes (-/n) | old /new /source | p<0.001/k =0 | Negative DM > Neutral DM |
| Bowen | 2017 | 18(12) | words (n) /faces (+/-/n) /scenes (+/-/n) | remember /know /new | p<.005/k=10 | Emotional Hits > Neutral Hits\*† |
| Cahill | 2004 | 15(7) | scenes (-/n) | remember /know /new | p<.001/k=4 | (HCHs > LCH > Misses) parametrically modulated by arousal (reported separately for men and women) |
| Erk | 2003 | 10(3) | words (n) /scenes (+/-/n) | free recall | p<.005/k=0 | Negative DM and Positive DM (combined into a single contrast)† |
| Erk | 2005 | 10(3) | words (n)/ scenes (+/-)  | old/new | p<.005/ cluster p<.05 | Negative DM and Positive DM (combined into a single contrast)† |
| Harvey | 2007 | 17(8)  | scenes (+/-/n) | old /new | p<.005/k=0 | Emotional DM > Neutral DM |
| Kark | 2015 | 17(7) | line drawings (+/-/n) /scenes (+/-/n) | old /new /confidence | p < 0.005/k=17 | Negative Hits > Neutral Hits and Positive Hits >Neutral Hits (combined into a single contrast) |
| Kark | 2019 | 22(11) | line drawings (+/-/n) /scenes (+/-/n) | old /new /vividness | p<.005/k=10 | Emotional DM > Neutral DM\* |
| Kensinger | 2005a | 16(9) | words (+/-/n) /objects (+/-/n) | old /new /source | p<.002/k=6 | (Emotional S Hit − Emotional S Miss) > (Neutral S Hit − Neutral S Miss) |
| Kensinger | 2006a | 21(10) | words (+/-/n) /scenes (+/-/n) | old/new/source | p<.001/k=5 | (Emotional S Hit > Emotional S Miss) and (Emotional S Miss > Emotional Miss) combined into a single contrast |
| Kensinger | 2007a | 20(10) | objects (-/n) | same /similar /new | p<.001/k=5 | Negative DM > Neutral DM |
| Kensinger | 2008b | 17(12) | objects (+/-/n) | same /similar /new | p<.001/k=5 | Emotional DM > Neutral DM |
| Mickley | 2008 | 20(10) | words (+/-/n) /scenes (+/-/n) | old /new /remember /know | p<.001/k=5 | Emotional DM > Neutral DM |
| Mickley Steinmetz | 2009 | 19(11) | scenes (+/-/n) | old /new | p<.001/k=5 | Emotional DM > Neutral DM |
| Mickley Steinmetz | 2012 | 21(9) | scenes (+/-/n) | old /new | p<.001/k=5 | Emotional DM > Neutral DM |
| Pais-Vieira | 2016 | 17(9) | scenes (+/-/n) | old /new /confidence | p<.005/k=19 | Emotional > Neutral with Linear subsequent memory regressor (HCHs > LCHs > Misses) |
| Parent  | 2011 | 14(0) | scenes (-/n) | free recall | p<.001/k=2 | Negative DM > Neutral DM (5 min delay and 10 min delay combined into a single contrast) |
| Rasch | 2009 | 57(41) | scenes (+/-/n) | free recall | p<.001/k=3 | Negative DM and Positive DM (combined into a single contrast) |
| Ritchey | 2008 | 13(7) | scenes (-/n) | old /new /confidence | p<0.0025/k=5 | Negative DM > Neutral DM |
| Ritchey | 2011 | 20(10) | scenes (+/-/n) | old /new /confidence | p<.0025/k=5 | Emotional DM > Neutral DM (Both Deep and Shallow encoding) |
| Schumann | 2018 | 69(69) | scenes (-/n) | old /new /confidence | p<.001/k=10 | Negative DM > Neutral DM (short delay and long delay combined into a single contrast)  |
| Sergerie | 2006 | 18(9) | faces (+/-/n) | old /new | p<.001/k=0 | Negative DM > Neutral DM (positive stimuli not analyzed) |
| Smith | 2004 | 15(8) | objects (n) /scenes (+/-/n) | old /new | p<.001/k=5 | Emotional Hits > Neutral Hits† |
| Talmi | 2008 | 11(5) | scenes (-/n) | old /new /confidence | p< 0.005/90mm3 | Negative DM > Neutral DM |
| Note. Table shows the encoding studies that met inclusion criteria. (N) = total number of subjects, (f) = number of female subjects, (?) indicates that the number of female participants is unknown because participants were dropped from subsequent analyses without mention of gender of dropped participants, (-) = negative, (+) = positive (n) = neutral, DM = Difference in Memory, HCH = high confidence hits, LCH = low confidence hits, R = Remember, K = Know, S=Source. |
| \* indicates that coordinates for this contrast were obtained from the authors and were not reported in the published paper |
| † indicates that encoded stimuli were neutral items that were paired with an emotional or neutral context |

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| Table 2 |
| *Studies included in the retrieval meta-analysis* |
| 1st Author | Year | N(f) | Stimuli | Recognition Task | Threshold/Extent | Contrast |
| Bisby | 2016 | 17(?) | scenes (-/n) | old /new /source | p<.001/k=0 | Negative DM > Neutral DM  |
| Bowen | 2017 | 18(12) | words (n) /faces (+/-/n) /scenes (+/-/n) | remember /know /new | p<.005/k=10 | Emotional Hits > Neutral Hits\*† |
| Erk | 2005 | 10(3) | words (n)/ scenes (+/-)  | old/new | p<.005/cluster p<.05 | Negative DM and Positive DM (combined into a single contrast)† |
| Fenker | 2005 | 20(14) | words (n) /faces (-/n) | remember /know /new | p<.005/k=0 | (Negative R Hits > Neutral R Hits) and (Negative K Hits > Neutral K Hits) (combined into a single contrast)† |
| Ford | 2014 | 27(12) | words (n) /scenes (+/-/n) | old /new | p<.005/k=10 | Emotional Hits > Neutral Hits† |
| Kalpouzos | 2012 | 19(9) | scenes (-/n) | old /new | p<.001/k=20 | Negative DM > Neutral DM |
| Kark | 2015 | 17(7) | line drawings (+/-/n) /scenes (+/-/n) | old /new /confidence | p<.005/k=10 | Negative Hits > Neutral Hits and Positive Hits > Neutral Hits (combined into a single contrast) |
| Kark | 2019 | 29(14) | line drawings (+/-/n) /scenes (+/-/n) | old /new /vividness | p<.005/k=10 | Emotional Hits > Neutral Hits\* |
| Kensinger | 2007b | 19(10) | objects (-/n) | same /similar /new | p<.005/k=5 | Negative DM > Neutral DM {DM defined as (same and similar) > miss} |
| Lewis  | 2011 | 22(12) | objects (n) /scenes (-/n) | old /new /source | p<.001/k=10 | Negative S Hit > Neutral S Hit† |
| Maratos | 2001 | 12(7) | words (n) /sentences (+/-/n) | old /new | p<.001/k=4 | Negative Hits > Neutral Hits and Positive Hits > Neutral Hits (combined into a single contrast)† |
| Sergerie | 2006 | 18(9) | faces (+/-/n) | old /new | p<.001/k=0 | Negative DM > Neutral DM (positive stimuli not analyzed) |
| Sharot | 2004 | 13(8) | scenes (-/n) | remember /know /new | p<.002/k=19 | (Negative R Hits > Neutral R Hits) and (Negative K Hits > Neutral K Hits) (combined into a single contrast) |
| Smith | 2004 | 15(8) | objects (n) /scenes (+/-/n) | old /new | p<.001/k=5 | Emotional Hits > Neutral Hits† |
| Smith | 2005 | 18(8) | objects (n) /scenes (+/-/n) | old /new/ source | p<.001/k = 5 | (Emotional S Hit > Neutral S hit) and (Emotional S Miss > Neutral S Miss) (combined into a single contrast)† |
| Smith | 2006 | 16(8) | objects (n) /scenes (-/n) | old /new/ source | p<.001/k = 0 | (Negative S Hit > Neutral S Hit) and (Negative S Miss > Neutral S Miss) (combined into a single contrast)† |
| Takashima | 2016 | 20(0) | scenes (n) /sounds (-/n) | old /new/ confidence | p<.001/FWE p<.05 | VS Negative Hits > VS Neutral hits (recent and remote combined into a single contrast)† |
| Note. Table shows the studies that met inclusion criteria. (N) = total number of subjects, (f) = number of female subjects, (?) indicates that the number of female participants is unknown because participants were dropped from subsequent analyses without mention of gender of dropped participants, (-) = negative, (+) = positive (n) = neutral, DM = Difference in Memory, R = Remember, K = Know, S=Source, VS = very sure. |
| \* indicates that coordinates for this contrast were obtained from the authors and were not reported in the published paper |
| † indicates that stimuli presented during the retrieval task were neutral items that were paired with an emotional or neutral context during encoding |